A Digital Education Continuum: Purdue for Life

• Enabling Infrastructure • Empowering Innovation • Expanding Impact

Purdue University
West Lafayette, Indiana

Action Plan: 2016-2019

Date: February 2016
INTRODUCTION

Purdue University has been growing a significant portfolio of digital education initiatives, including novel technologies to enhance learning as well as hybrid and fully online courses, certificates, and degrees. Purdue offered an average of 128 online undergraduate courses per term in 2015 with a total annual enrollment of nearly 23,000 students. Among the baccalaureate graduates of spring 2014, more than half (53 percent) had taken at least one on-line course, while nearly a third (31 percent) had taken two or more online courses. In 2014-15, just over 1,500 off-campus students pursued one of 23 online graduate degrees or certificates from Purdue, with just over 300 earning their degrees or certificates on-line. US News and World Report has ranked Purdue Engineering Education as the fifth best graduate on-line engineering program in the nation. These accomplishments provide a foundation for much greater accomplishments that can be achieved with novel approaches, greater coordination, and new support models.

In the contemporary sprit of a land-grant university, Purdue has tremendous potential to accelerate and broaden the infusion of digital education in ways that enhance access, success, and affordability. With pervasive digital education Purdue can reach a much larger number of current and future students, professionals, alumni, and interested audiences around the nation and the world. We envision a future in which learners can access Purdue in person and online to meet educational needs throughout their lives - for pre-college, college, graduate and professional education, specialized and/or career-specific educational enrichment, and lifelong learning: Purdue for Life.

To achieve this vision a wide range of faculty, staff, students, and alumni worked together to develop an action plan designed to create A Digital Education Continuum that infuses digital teaching and learning across Purdue’s educational landscape. A pervasive approach ranging from infusing digital pedagogy into on-campus courses and programs, to complete on-line courses, stackable credentials, degree programs, and certificates. Building on a mission and vision for digital education at Purdue, the major goals of this plan are to develop Enabling Infrastructure for Empowering Innovation that will result in Expanding Impact. To achieve these goals requires a series of six specific actions that are described in the plan.

This action plan conveys the aspirations, ideas, and strategies of faculty, staff, students, and alumni who are committed to a digital education future that enhances and transforms learning, increases curricular flexibility and access to knowledge and skills, improves rigor and quality, and that dramatically expands the impact of Purdue programs.
MISSION

Infusion

Infuse digital technology in teaching with pedagogies that expand high quality educational opportunities for a wide range of learners.

Key Characteristics:

• A broad footprint of digital education that addresses the learning needs of Purdue students and alumni, as well as targeted populations around the nation and the world, serving in the contemporary spirit of the land-grant mission.

• Widespread synchronous and asynchronous learning permitting flexibility of access and opportunity, with a variety of digital pedagogies and uncompromised quality of learning outcomes.

• An engaged faculty working in concert with a campus-wide network of digital education experts to ensure seamless learning experiences, scalable for increasing reach to larger and more diverse audiences that have a wide array of learning needs and cultures.

• A demonstrably effective and efficient digital learning infrastructure—an enterprise marked by creativity, reliability, durability, and institutional as well as audience affordability to assure long-term sustainability, with consistency in student learning success.

VISION

A Digital Education Continuum: Purdue for Life

Achieve distinction in providing a rich portfolio of digital teaching and learning—a continuum of low-to-high infusion of evidence- and research-based digital pedagogies—engaging PK-12, university, and lifelong learners.

Key Characteristics:

• A rich continuum of low-to-high infusion of digital education with exceptional quality that increasingly complements traditional teaching and learning outcomes—a distinctive Purdue brand of enabled holistic integration of research-based pedagogies.

• Exceptional learning opportunities that add value, that are based on the latest subject knowledge and digital technology, and that are provided by empowered and engaged faculty experts who attract new audiences on- and off-campus.

• Outstanding flexibility that accommodates the learning needs of diverse populations, supported by ubiquitous access to expanded learning opportunities—as an integral part of Purdue’s distinctive approach to digital education.

• Sophisticated analytics that allow formative and summative assessment of multiple dimensions of educational quality as the basis for continuous improvement of Purdue’s presence in and impact on the world’s digital education endeavors.
GOALS

Goal-1: Enabling Infrastructure

Enable faculty, staff, students, alumni, and other stakeholders to engage in a continuum of holistically integrated evidence- and research-based digital education opportunities.

Key Characteristics:

• A broad spectrum of resources (human, technical, knowledge, training, skills, and facilities) and a well organized and coordinated infrastructure that enables all constituencies to access and advance digital education.
• Academic and support units determining their own contributions to advancing digital education.
• Continuous coordinated development and upgrading of digital technologies to meet evolving institution-wide expectations with durability, scalability, and sustainability in ways that address access and affordability.
• Robust experimentation and research on digital pedagogies that advance new approaches to digital education contributing to Purdue’s growing reach, impact, and distinction.

Goal-2: Empowering Innovation

Empower the teaching and learning communities to innovate and advance knowledge and skills of exceptional value and utility in digital education.

Key Characteristics:

• Encouraging innovation with support and rewards to explore new pedagogical options as well as opportunities to advance expertise in digital education.
• Promoting the development of a rich continuum of low-to-high infusion of digital pedagogies, customized for discipline and audience needs, that result in uncompromised quality of learning outcomes.
• A coordinated capacity for digital accessibility for faculty seeking consultations, and students seeking interactions and feedback.
• An engaged faculty and staff digital education community that fosters creativity, novel ideas, and collaborative approaches to grow Purdue’s digital education enterprise.

Goal-3: Expanding Impact

Expand the global impact of outstanding digital education opportunities for diverse audience needs with engagement flexibility and ubiquitous access.

Key Characteristics:

• Growing Purdue’s worldwide digital education endeavors catering to targeted audience groups as well as providing a range of open educational resources.
• A continuum of digital education options including formal coursework, flexible learning experiences, and certificate and degree programs.
• Tailored flexible digital education opportunities and products that provide ubiquitous access, and that address focused industry and non-industry clientele to sustain growth and nurture collaborations.
• An unprecedented level of accomplishments in the enhancement of lifelong learning so that ‘Purdue for Life’ becomes a mark of excellence and distinction acknowledged worldwide.
PLAN CONCEPT

A Digital Education Continuum: Purdue for Life

**ENABLING INFRASTRUCTURE**
- Infrastructure to Support the Digital Education Community
- Infusion of Digital Education at Multiple Levels
- Coordinated Single Gateway for Communication and Resources
- Ubiquitous Access

**EMPOWERING INNOVATION**
- Robust Spectrum of Resources: HR/Tech/Training/Organization/Finance
- Pedagogical Innovation/Exploration
- Bold Research and Experimentation
- Engaged Faculty and Staff with Collaboration
- Outstanding Flexible Learning Opportunities

**EXPANDING IMPACT**
- Continuum of Learners
- Formal Coursework/Certificates/Degrees
- Worldwide Acknowledgement of Distinction

Purdue University
Action Plan for Digital Education: 2016-2019
ACTION PLAN

The three Goals defined in this plan—Enable, Empower, and Enhance—are intrinsically intersecting and interdependent. Thus the Action Steps associated with these Goals are described together as a group, as are the Key Metrics that measure progress and impact of the Action Steps.

The Actions and Metrics are identified in general terms here; Once the final plan is completed then detailed Implementation Plans will be developed for each Action, and the Metrics will be developed further to provide specific definitions, data acquisition methods and standards, and reporting guidelines.

Key Actions

1. Launch an integrated support program for digital education (DE).
   - Inventory available DE tools, services, and human capital, as the basis for a needs analysis focused on growing a large-scale and integrated support infrastructure for DE that includes:
     - Instructional technologists, instructional designers, compliance and assessment specialists, DE pedagogy researchers.
     - A coordinated center for supporting digital accessibility needs.
     - A robust DE platform, and templates to provide a familiar and consistent environment for instructors and learners.
     - A central repository of resources that facilitate best practice sharing and tool use development, including training for on-line learners and teachers.
     - A ‘24/7’ customer service help-line for constituents, serving teaching/learning communities.
     - Ongoing assessment and evaluation to inform program improvement, innovative pedagogical research, resource utilization, and future investments.
     - A responsible and responsive organizational structure that enables DE activities with creativity, agility, and effective and efficient coordination.
   - Scale this support program to meet the needs of online programs at least to twice the current level during the planning period, and encourage departments to use this program to pursue goals in DE that they define.
   - Develop a DE budget model that allows faculty and departments to benefit from launching and growing programs that they have decided strategically are a good investment for their unit.

2. Create college-level digital education (DE) teams.
   - College teams will include (1) DE Fellows (to coordinate and share resources across colleges, to share discipline-specific resources, and be the go-to person when faculty are looking for support and resources), (2) Instructional Designers assigned to focus on particular colleges/Departments, and to provide coordination with local IT.

3. Create a central portal for digital education (DE) at Purdue University
   - Restructure http://online.purdue.edu to be a comprehensive single gateway to all aspects of DE at Purdue, including:
     - Opportunities for learners (training, MOOCs, certificates, degrees).
     - A one-stop shop for resources and training for instructors.
     - A showcase to highlight evidence- and research-based best practices.
     - Resources and incentives for DE research, DE teaching/learning, and the DE community.

- Cultivate a community for digital education across the university (and within units) to encourage mentoring, sharing tools, and mutual support. Include a TLT conference. Potential community foci include:
  - Research on innovations and inventions in DE.
  - DE innovation grants (e.g. action research using particular digital education tools/ pedagogies in classroom).
  - Scholarship of DE.
  - College- and discipline-specific DE.
  - Development and testing of DE Tools.

This will involve creation of DE Fellows in each college and facilitation by an agile organizational structure as well as resources matched to growing DE community needs.


- Develop a set of innovative incentives and awards for the scholarly engagement and delivery of digital education, and review and update these awards annually. Such awards could be used as evidence of accomplishment in annual evaluations and career advancement (e.g., P&T). Examples might include:
  - DE ‘Newbie’ awards.
  - DE affordability award, for innovations that increase the impact of DE expenditures.
  - Student awards for DE innovation.
  - Quality in online instruction awards.
  - Scholarship and development of DE awards.
  - Student centered innovation and delivery awards (based on ideas to improve practices).
  - Recognition for courses that meet QM or other recognized quality standards.

6. “Purdue for Life” – through digital education (DE)

- Perform a DE market and needs assessment and then launch a new brand based on the “Purdue for Life” theme, initially focusing on the most viable programs identified by the assessment.

- Building on current offerings, construct a diverse and comprehensive portfolio of DE educational opportunities that can be accessed each time a person has new learning goals – alumni (degrees, certificates, corporate training programs, interests, NeXT, badges), current students (online courses, training programs, certificates), and future students (MOOCS, prep courses, dual credit).

- Include integration of non-credit bearing opportunities to allow individuals to take ‘Purdue for Life’ online course/modules/badges in a way that is responsive to their personal needs and that can be knit together to form a basis of a Purdue degree/certification, etc. if desired.

- Invite and support every department to develop an intro MOOC (with DE badge) that is a module within an existing introductory course, so that the global audience (including potential new students and alumni) can interact with Purdue students in learning and discussions, and so that Purdue students can interact with the wide range of perspectives of a global community.
PURDUE ACTION PLAN FOR DIGITAL EDUCATION (AP4DE)

- Include a recurring 'seminar' course that is available ~6 months-to-one year after graduation for every commencement group to continue the Purdue connection, build community, gather input about potential needs, and make alumni aware of available DE program offerings.

**Key Metrics:** [I]=Input  [T]=Throughput  [O]=Output  Note: “Dashboard” Metrics are underlined.

All of these metrics are potentially important measures of the successful implementation of the Action Plan. A selected set of Output metrics [O] will serve as a ‘Dashboard’ to gauge the growth, quality, currency, and impact of Purdue’s innovative DE enterprise locally, nationally, and globally.

- Annual assessments addressing:
  - Awareness of resources available. [I]
  - Market/needs assessment for DE programs and services with periodic updates. [I]
  - Client utilization/satisfaction of currency in DE tools, services, instructional designers, and other DE expertise (relative to demand) via questionnaires and reports. [T/O]
  - Active DE community units in colleges (80% of colleges with this unit in place by 2018, and 100% by 2021), with level and scope of participation by departments/colleges. [T]
  - Faculty, staff, and student use of DE support (number of consultative contacts, number of courses impacted, number of students served). [T]
  - Impact of incentives for effective innovation and expansion of DE initiatives. [I/T]
  - DE infusion into courses (increase by at least 10% each year). [O]
  - Growth of DE continuum based on geographic reach, audiences served, number and types of DE opportunities offered, and outcomes achieved including completion rates. [O]
  - Impact on stakeholder’s perception of DE learning, engagement, and retention. [O]
  - Impact on student learning (e.g., quality, completions/time taken, value). [O]
  - Number and types of scholarly assets around the use of DE. [O]
  - Number and types of university/college/external awards/recognition. [O]
  - Number of grant applications, awards, and award amounts. [O]
  - Number of DE Fellows added annually. [O]
  - Effectiveness and efficiency of DE organizational structure. [T]
  - ‘Fit-gap’ analysis of organizational structure compared to DE community needs. [T]
  - Evaluation of constructive use of the DE budget model. [T]
IMPLEMENTATION

This plan includes a series of key actions required to empower faculty and staff to transform Purdue’s digital education landscape. As an immediate next step, implementation teams will map out detailed tasks, timelines, responsibilities, and budgets. This will include finalizing a new organizational structure and budget for integrated support programs, refining metrics and their definitions, and prioritizing areas for initial expansion with related incentives and delivery and accountability expectations. The implementation teams will include representatives of the community that was engaged in developing the action plan, and other faculty and staff leaders with relevant expertise. Implementation plans will be completed during the 2016 spring semester, with major new initiatives to start in summer 2016.

Purdue is embarking on a bold new initiative to grow a robust digital education enterprise in the contemporary spirit of a land-grant research university. With expanded program offerings, new and renewed educational opportunities, and affordable student access and success, Purdue will significantly enhance its national and global impact through a continuum of digital education that supports lifelong learning needs. A Digital Education Continuum: Purdue for Life.